March 7, 2017

Sarah Telschow, AICP
Odelia Pacific Corporation
5506 6th Avenue South, Suite 202
Seattle, WA 98108

Site: Puget Sound Emergency Radio Network
Education Hill
10365 172 Ave NE
Redmond, WA 98052

Re: RFI from City of Redmond: changes are highlighted in yellow

Dear Sarah:

Thank you for requesting my services. I was hired to perform a Visual Risk Assessment (VRA) for the significant* trees growing on the site above and to prepare a "Tree Retention Plan" (subject to Redmond Zoning Code 21.72.060.A.1) to be included in the permit submittal for a proposed site development.

In summary:

- There are 127 trees on the site
- 82 trees are viable and located within 50' surrounding the proposed improvements
- 14 trees are proposed to be removed for site improvements
- 50 are retained and not impacted
- 18 trees are impacted
- Mitigation is 36 trees
- City of Redmond Zoning Code (21.72.060.A.1) requires a 35% retention (82 X 35% = 29 Trees)
- Limits of Disturbance (LOD) are noted on the Tree Inventory Spreadsheet and are specific to each tree based on species, tolerance to construction and site conditions.
- There is the presence of fugal root rot on the site impacting Hemlocks and Douglas fir trees

I have included a detailed report of my findings, if you have any questions please contact me. I can be reached on my cell phone: 425.890.3808 or by email: sprince202@aol.com.

Warm regards,

Susan P

Susan Prince
Creative Landscape Solutions
ISA Certified Arborist #1481
TRAQ Certified Arborist #481
Landscape Designer
425.890.3808

*significant tree is any tree with a breast height diameter of 6" or larger

Assignment:
To assess all the significant and landmark trees within a 50' radius of the proposed site improvements and to prepare a "Tree Preservation Plan" to be included with submittal to obtain a building permit.

Personal qualifications, scope of work and methodology:
To evaluate the trees and prepare the report, I drew on my formal college education in botany and the preparation and training used to obtain my ISA certification. In addition to my education and certification, I relied heavily on my training to obtain my certification as a Tree Risk Assessor. I have been an ISA Certified Arborist for over fifteen years and have been TRACE/TRAQ certified for four years.

I followed protocol delineated by the International Society of Arboriculture (ISA) for Visual Risk Assessment (VRA). By doing so, I am examining each tree independently as well as collectively as groups or stands of trees provide stability and can lower risk of independent tree failure. This scientific process examines tree health (e.g. size, vigor, and insect and disease process) as well as site conditions (soil moisture and composition, number of impervious surfaces surrounding the tree etc.)

Introduction:
Identifying and managing the risks associated with trees is still largely a subjective process. Since the exact nature of tree failures remains largely unknown, our ability as scientists and arborists to predict which trees will fail and in what fashion remains limited. As currently practiced, the science of hazard tree evaluation involves examining a tree for structural defects, including genetic problems, those caused by the local environmental that the tree grows in and those attributed to man (pruning etc.).

The assessment process involves evaluating three components: 1) a tree with the potential to fail, 2) an environment that may contribute to that failure, and 3) a person or object that would be injured or damaged (the target). A defective tree cannot be considered hazardous without the presence of a target.

All trees have a finite life-span though it is not pre-programmed internally in the same manner as annual plantings. As trees age, they are less able to compartmentalize structural damage following injury from insects, disease or pruning. Trees in urban settings have a shorter life span than trees grown in an undisturbed habitat.

Different species of trees grow differently. Evergreen trees have a "reputation" of growing slowly and defensively. These trees allocate a high proportion of their resources to defending themselves from pathogens, parasites and wounds. As a rule, trees with this type of growth tend to be long lived. Though like all other living things, they have a predictable life span. Examples of this type of tree include the northwest Pseudotsuga menziesii - Douglas fir, and Thuja plicata - Western red cedar.

Deciduous trees are trees that annually shed leaves or needles. These trees tend to grow quickly and try to "outgrow" problems associated with insects, disease and wounds. They allocate a relatively small portion of their internal resources to defense and rely instead upon an ability to grow more quickly than the pathogens which infect them. However, as these trees age, their growth rate declines and the normal problems associated with decay begins to catch up and compromise the tree's structural integrity. Examples of this type of tree include Salix, Populus and Alnus.

Knowledge of the growth and failure patterns of individual tree species is critical to effective hazard analysis. Species vary widely in their rates of failure. The hazard tree evaluation rating system used by most arborists was developed by the Colorado Urban Forest Council and recognizes this variation in species failure and includes a species component as part of the overall hazard evaluation.

Site Observations:
Site is in a suburban area of Redmond on Education Hill, west of Avondale and south of NE 104th St, adjacent to a city park.

Offsite trees Potentially Impacted by Development:
There are several potentially impacted offsite trees identified in a matrix.

Method's used to determine tree location and tree health:

Trees were identified previously by numbered aluminum tags attached to the western side of the tree. All the trees on site were examined using the Matheny and Clark[1] criteria for determining the potential hazard of trees in an urban environment as well as the Tree Risk Assessment in Urban Areas and The Urban/Rural Interface by Julian Dunster[2]. Tree diameters were measured using a logger's tape, and tree driplines were measured in four directions if necessary by a Nikon Forestry PRO Laser Rangefinder™.

ABBREVIATED LEGEND- SEE REPORT FOR GREATER DETAIL

#1 Numerical ordering
#2 Tree tag #: numbered aluminum tags attached to the trees in the field
#3 Tree species ID: common and botanical names

- Apple: *Malus sp.*
- American sycamore: *Plantanus occidentalis*
- Austrian pine: *Pinus nigra*
- Bigleaf maple: *Acer macrophyllum*
- Birch: *Betula nigra*
- Bitter Cherry: *Prunus emarginata*
- Blue atlas cedar: *Cedrus atlantica 'Glauca'*
- Cedar: *Thuja plicata*
- Cherry: *Prunus sp.*
- Dawn redwood: *Chamaecyparis nootkatensis*
- Deodora cedar: *Cedrus deodara*
- Colorado blue spruce: *Picea pungens*
- Cottonwood*: Populus trichocarpa*
- Dogwood*: Cornus nuttallii*
- Douglas fir: *Pseudotsuga menziesii*
- English laurel: *Prunus laurocerasus*
- Filbert: *Corylus avellana var.*
- Grand fir: *Abies grandis*
- Hemlock: *Tsuga hetrophylla*
- Holly: *Ilex aquifolium*
- Japanese maple: *Acer palmatum*
- Leylandii cypress: *Cupressocyparis leylandii*
- Lodgepole pine*: Pinus contorta*
- Mountain ash: *Sorbus americana*
- Mountain hemlock: *Tsuga mertensiana*
- Pear: *Pyrus sp.*
- Plum: *Prunus*
- Red Alder: *Alnus rubra*
- Red maple: *Acer rubrum*
- Walnut: *Juglans sp.*
- Western red cedar: *Thuja plicata*
- Weeping Alaska cedar*: Metasequoia glyptostrobides*
- White pine*: Pinus strobus*

#4 DBH: diameter of the tree measured in inches at 4' above grade
#5 Adj. DBH: multiple trunk tree DBH in inches calculated per municipality directives
#6 Dripline Radius: measurement in feet of the tree canopy from tree trunk to outermost branch tip via laser rangefinder
#7 Windfirm: whether the tree is not protected by other structures of trees remains windfirm
#8 Health: a measurement of overall tree vigor and vitality rated as excellent, good, OK, fair or poor based on an assessment of crown density, leaf color and size, active callusing, shoot growth rate, extent of crown dieback, cambium layer health, and tree age

- Excellent: Tree is an ideal specimen for the species with no obvious flaws
- Good: Tree has minimal structural or situational defects
- OK: Minimal structural issues with poor
- Fair: Tree has structural or health issues that predispose it to failure if further stressed
- Poor: Tree has significant structural and/or health issues. It is exempt from total tree count.

#9 Defects/Concerns: a measure of the tree's structural stability and failure potential based on assessment of specific structural features, e.g., decay, conks, co-dominant trunks, included bark, abnormal lean, one-sided canopy, history of failure, prior construction impact, pruning history, etc.
#10 Proposed actions:

- Retain
- Impacted
- Remove due to viability
- Remove due to planned development (tree is otherwise healthy)

#11 Limits of disturbance/Tree protection zone: the area surrounding the tree that defines the area that surrounds the trunk that cannot be encroached upon during construction. This may be a multiple of the trunk diameter (1 -1.5 times the trunk diameter converted to feet) or it may be related to the width of the canopy. It is always determined by tree species and environment and is up to the discretion of the ISA Certified Arborist to determine
#12 Measure of tree "value" may be determined by municipality formula or a direct measure of the trunk diameter to determine significance; for the City of Redmond an "S" = Significant tree (6"-29" DBH); an "L" = Landmark Tree (>30" DBH) Landmark trees are highlighted in green

[1] Matheny, N., and Clark, J. 1994. *Evaluation of Hazard Trees in Urban Areas*. 2nd Edition. Champaign, Illinois: International Society of Arboriculture.
[2] Dunster, J.A. 2009. *Tree Risk Assessment in Urban Areas and the Urban/Rural Interface*: Course Manual. Silverton, Oregon: Pacific Northwest Chapter, International Society of Arboriculture.

Onsite trees:

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
1	401	Bigleaf maple	5, 6	8	20	y	Good	Co-dominant leaders with included bark x2 @ 4', typical of species	1*				25	25	25	25	S
2	402	Douglas fir	13	13	15	y	Good	Typical of species, dead wood, broken branches	1*				20	20	20	20	S
3	403	Douglas fir	14	14	15	y	OK	Typical of species, dead wood, broken branches	1				21	21	21	21	S
4	404	Maple	13.5	13.5	16	y	OK	Co-dominant leaders with included bark x2 @ 6', woodpecker activity, dead twigs	1				21	21	21	21	S
5	405	Douglas fir	11	11	20	y	OK	Dead wood, dead twigs, typical of species	1				25	25	25	25	S
6	406	Douglas fir	7	7	10	y	OK	Dead wood, dead twigs, suppressed canopy	1				15	15	15	15	S
7	407	Douglas fir	22	22	20	y	OK	Some stress coning, dead wood, broken branches, low live crown ratio - 30%	1*				25	25	25	25	S
8	408	Western red cedar	7	7	9	y	OK	Topped @ 7', typical of species	1*				14	14	14	14	S
9	409	Western red cedar	12.5	12.5	16	y	OK	Typical of species, asymmetric canopy to east, dead wood	1*				21	21	21	21	S
10	410	Western red cedar	25.5	25.5	16	y	Good	Typical of species	1				21	21	21	21	S
11	411	Douglas fir	6	6	8	y	OK	Exposed roots, thin canopy, typical of species	1				13	13	13	13	S
12	412	Bigleaf maple	29	29	30	y	Good	Typical of species	1*				35	35	35	35	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
13	413	Douglas fir	13	13	12	y	OK	Low live crown ratio - 10%, OK in grove	1				17	17	17	17	S
14	414	Western red cedar	9	9	9	y	Good	Typical of species	1				14	14	14	14	S
15	415	Western red cedar	16	16	14	y	OK	Typical of species, thin canopy	1				19	19	19	19	S
16	416	Western red cedar	9	9	8	y	Fair	Dead wood, broken branches, thin canopy, suppressed canopy, OK in grove			1		13	13	13	13	S
17	417	Western red cedar	10	10	14	y	OK	Asymmetric canopy to SE, thin canopy, dead wood, broken branches, OK in grove	1				17	17	17	17	S
18	418	Western red cedar	9	9	9	y	OK	Thin canopy, dead wood, broken branches, suppressed canopy, OK in grove	1*				14	14	10	14	S
19	419	Western red cedar	17	17	22	y	OK	Typical of species, asymmetric canopy to east, dead wood, broken branches		1			27	6	27	27	S
20	420	Douglas fir	24	24	24	y	Good	Abnormal bark, shedding bark, carpenter ants bark only, sway to west, previous top loss, elongated branches		1			29	3	29	29	S
21	421	Western red cedar	14	14	12	y	OK	Typical of species		1			17	17	17	17	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
22	422	Douglas fir	12	12	20	y	Fair	Previous top loss, elongated branches, suppressed canopy, wound @ 6' on south and 8' on south, dead wood, broken branches, dead twigs, OK in grove			1		25	25	25	25	S
23	423	Western red cedar	10	10	12	y	OK	Asymmetric canopy to east, dead wood, low live crown ratio - 10%		1			17	11	17	11	S
24	424	Western red cedar	8.5	8.5	11	y	OK	Thin canopy, dead wood, low live crown ratio - 10%, OK in grove		1			16	11	16	11	S
25	425	Western red cedar	7	7	6	y	OK	Asymmetric canopy to SE, thin canopy, dead wood, low live crown ratio - 5%, OK in grove	1				11	11	11	11	S
26	426	Western red cedar	20	20	14	y	OK	Asymmetric canopy to east, vertical crack, torque crack on west, dead wood, broken branches		1			19	19	19	13	S
27	427	Western red cedar	8	8	7	y	OK	Suppressed canopy, dead wood, broken branches, typical of species	1				13	13	13	5.5	S
28	428	Western red cedar	12	12	9	y	Good	Typical of species, nurse tree		1			14	14	14	14	S
29	429	Western red cedar	14	14	10	y	OK	Calloused wound @ 5' to 6' on north, typical of species, cavity @ root crown to 1' on north, dead		1			15	15	15	15	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
								wood, broken branches, calloused @ 3' on south									
30	430	Douglas fir	31.5	31.5	16	y	OK	Abnormal bark, shedding bark, carpenter ants bark only, bark beetle, low live crown ratio - 30%		1			21	21	21	21	L
31	431	Douglas fir	12	12	12	y	Fair	Previous top loss, weak lateral, elongated branches, low live crown ratio - 5%, OK in grove			1		17	17	17	17	S
32	432	Douglas fir	8	8	9	y	Fair	Previous top loss, suppressed canopy, dead wood, OK in grove			1		14	14	14	14	S
33	433	Douglas fir	10.5	10.5	11	y	Fair	Previous top loss, poor laterals @ top, OK in grove			1		16	16	16	16	S
34	434	Western red cedar	10	10	11	y	OK	Typical of species, suppressed canopy				1	16	16	16	16	S
35	435	Western red cedar	13	13	12	y	OK	Co-dominant leaders with included bark x2 @ 6', typical of species, thin canopy				1	17	17	17	17	S
36	436	Douglas fir	23	23	22	y	OK	Previous top loss				1	27	27	27	27	S
37	437	Western red cedar	13	13	8	y	Good	Typical of species, slight lean to east				1	13	13	13	13	S
38	438	Douglas fir	19	19	15	y	OK	Dead wood, dead twigs, dead tissue in canopy, free flowing sap to south, vertical crack @ 4' to 12', asymmetric canopy to south, OK in grove				1	20	20	20	20	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
39	439	Douglas fir	15	15	15	y	Fair	Self-corrected lean to west, no taper, nurse tree, dead wood, broken branches, serpentine trunk, dead twigs, OK in grove			1		20	20	20	20	S
40	440	Douglas fir	13.5	13.5	17	y	Fair	No taper, self-corrected lean to south, previous top loss, dead wood, broken branches, dead twigs, thin canopy, OK in grove			1		22	22	22	22	S
41	441	Douglas fir	23	23	18	y	Fair	Taps hollow, lean to north, non-self-corrected lean, previous top loss, elongated branches, dead wood, broken branches, dead twigs, OK in grove			1		23	23	23	23	S
42	442	Douglas fir	19	19	16	y	OK	Low live crown ratio - 10%, dead wood, broken branches, dead tissue in canopy, sap		1			12	21	21	21	S
43	443	Douglas fir	22	22	16	y	OK	Typical of species	1				21	21	21	21	S
44	444	Douglas fir	11	11	9	y	Fair	Dead wood, broken branches, dead twigs, asymmetric canopy to south, no taper, abnormal bark, shedding bark, carpenter ants bark only, woodpecker activity,			1		14	14	14	14	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
								serpentine trunk, OK in grove									
45	445	Douglas fir	9.5	9.5	12	y	Fair	Abnormal bark, no taper, calloused wound @ root crown up to 1' on south, previous top loss, suppressed canopy, low live crown ratio - 10%, OK in grove, dead wood, dead twigs, elongated branches			1		17	17	17	17	S
46	446	Western red cedar	6	6	4	y	Poor	Exposed roots, decay @ root, cavity @ root crown, self-corrected lean to south			1		9	9	9	9	S
47	447	Douglas fir	12, 13	17.5	12	y	Fair	Co-dominant leaders with included bark x2 @ root crown, weak laterals, previous top loss on both, OK in grove			1		17	17	17	17	S
48	448	Douglas fir	23	23	15	y	OK	Low live crown ratio - 30%, dead wood, broken branches, typical of species	1				20	20	20	20	S
49	449	Douglas fir	8	8	6	y	Poor	Previous top loss, failing to west, laminated root rot? Mostly dead			1		11	11	11	11	S
50	450	Douglas fir	19	19	12	y	OK	Moss and lichen, low live crown ratio - 20%	1				17	17	17	17	S
51	451	Holly	7, 9	11.5	12	y	OK	Co-dominant leaders with included bark x2 @ 1', typical of species,	1				17	17	17	17	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
								asymmetric canopy to east									
52	452	Douglas fir	11	11	12	y	Fair	Co-dominant leaders with included bark x2 @ 20', 2 weak laterals, low live crown ratio - 10%, serpentine trunk, dead wood, broken branches, OK in grove			1		17	17	17	17	S
53	453	Douglas fir	8.5	8.5	8	y	Fair	Suppressed canopy, co-dominant leaders with included bark x2 reduced to 1 @ 20', previous top loss, dead wood, dead twigs, low live crown ratio - 5%, OK in grove			1		13	13	13	13	S
54	454	Western red cedar	6	6	9	y	OK	Suppressed canopy, dead wood, typical of species	1				14	14	14	14	S
55	455	Western red cedar	7.5	7.5	12	y	OK	Typical of species, thin canopy, self-corrected lean to west, nurse tree	1				17	17	17	17	S
56	456	Douglas fir	11	11	10	y	Fair	Serpentine trunk, co-dominant leaders with included bark x2 reduced to 1 @ 25', suppressed canopy, dead wood, broken branches, previous top loss, OK in grove, lean to north			1		15	15	15	15	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
57	457	Douglas fir	21	21	17	y	Fair	Dead wood, broken branches, dead twigs, dead tissue in canopy, early laminated root rot? OK in grove			1		22	22	22	22	S
58	458	Western red cedar	7	7	10	y	OK	Suppressed canopy, thin canopy, dead wood, broken branches	1				15	15	15	15	S
59	459	Douglas fir	13	13	12	y	Fair	Wound @ 15' on north and 16' on west, low live crown ratio - 10%, dead wood, broken branches, OK in grove			1		17	17	17	17	S
60	460	Douglas fir	24	24	14	y	Fair	Abnormal bark, shedding bark, carpenter ants bark only, previous top loss, dead twigs, Horizontal crack @ 6', taps hollow			1		19	19	19	19	S
61	461	Douglas fir	8.5	8.5	10	y	Fair	Suppressed canopy, co-dominant leaders with included bark x2 reduced to 1 @ 20', dead wood, broken branches, OK in grove			1		15	15	15	15	S
62	462	Douglas fir	6	6	12	y	Poor	Failing to west			1		17	17	17	17	S
63	463	Western red cedar	16	16	15	y	OK	Typical of species, self-corrected lean to east	1				20	20	20	20	S
64	464	Western red cedar	22	22	18	y	OK	Asymmetric canopy to NE, early coning, typical of species	1				23	23	23	23	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
65	465	Douglas fir	17	17	29	y	OK	Typical of species, asymmetric canopy to east	1				22	22	22	22	S
66	466	Western red cedar	15	15	16	y	OK	Typical of species	1				21	21	21	21	S
67	467	Douglas fir	24, 11	26.5	19	y	Fair	Co-dominant leaders with included bark x2 @ root crown, 11" is dead, early laminated root rot? Dead wood, broken branches, dead tissue, thin canopy, previous top loss, elongated branches, OK in grove			1		24	24	24	24	S
68	468	Western red cedar	12	12	13	y	OK	Typical of species, recent wound @ 3' up to 8' on west	1				18	18	18	18	S
69	478	Douglas fir	8	8	8	y	Poor	Mostly dead, failing to north			1		13	13	13	13	S
70	479	Western red cedar	10	10	10	y	OK	Self-corrected lean to north, serpentine trunk, typical of species				1	15	15	15	15	S
71	480	Douglas fir	21	21	18	y	OK	Typical of species, low live crown ratio - 25%, previous top loss, elongated branches				1	23	23	23	23	S
72	481	Douglas fir	13	13	15	y	OK	Calloused wound on north @ 3' up to 14', Dead wood, broken branches, typical of species				1	20	20	20	20	S
73	482	Douglas fir	8.5	8.5	0	y	Poor	Mostly dead, failing to north			1		0	0	0	0	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
74	483	Cottonwood	11	11	10	y	Poor	Decay throughout			1		15	15	15	15	S
75	484	Western red cedar	10	10	12	y	OK	Typical of species				1	17	17	17	17	S
76	485	Western red cedar	10	10	12	y	OK	Typical of species		1			7	17	17	17	S
77	486	Douglas fir	17	17	16	y	OK	Thin canopy, asymmetric canopy to south, low live crown ratio - 25%		1			7	21	21	21	S
78	487	Douglas fir	26	26	18	y	OK	Abnormal bark, shedding bark, carpenter ants bark only, dead wood, broken branches, hanger		1			8	23	23	23	S
79	488	Western red cedar	9	9	11	y	OK	Suppressed canopy, exposed roots, dead wood, broken branches, typical of species		1			7	16	16	16	S
80	489	Western red cedar	20	20	14	y	OK	Typical of species, dead wood, broken branches		1			14	19	19	19	S
81	490	Western red cedar	7	7	11	y	Fair	Suppressed canopy, asymmetric canopy to south, broken branches, OK in grove			1		17	17	17	17	S
82	491	Western red cedar	10	10	13	y	OK	Typical of species, asymmetric canopy to south	1				18	18	18	18	S
83	492	Western red cedar	18	18	12	y	OK	Typical of species, dead wood, cavity @ root crown up to 5' on west	1				17	17	17	17	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
84	493	Western red cedar	22	22	14	y	OK	Nurse tree, exposed roots, column of decay @ 1' up to 12' on north, typical of species, broken branches, dead wood	1				19	19	19	19	S
85	494	Western red cedar	6	6	10	y	OK	Suppressed canopy, typical of species, dead wood, broken branches	1				15	15	15	15	S
86	495	Douglas fir	18	18	12	y	Fair	No taper, self-corrected lean to north, narrow canopy, abnormal bark, shedding bark, carpenter ants bark only, OK in grove			1		17	17	17	17	S
87	496	Douglas fir	16	16	18	y	Fair	Previous top loss, elongated branches, low live crown ratio - 20%, OK in grove			1		23	23	23	23	S
88	497	Douglas fir	13	13	16	y	OK	Asymmetric canopy to south, low live crown ratio - 30%, dead wood, broken branches, thin canopy, OK in grove	1				21	21	21	21	S
89	498	Bigleaf maple	8	8	18	y	Fair	Previous top loss, large wound on scaffold, OK in grove			1		23	23	23	23	S
90	499	Douglas fir	14.5	14.5	12	y	Poor	Abnormal bark, shedding bark, carpenter ants bark only, bark beetle, nurse tree, previous top loss			1		17	17	17	17	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
91	500	Alder	13	13	14	y	Fair	Previous top loss, dead wood, broken branches, low live crown ratio - 15%, OK in grove			1		19	19	19	19	S
92	502	Western red cedar	24	24	13	y	OK	Typical of species	1				18	18	18	18	S
93	503	Western red cedar	7	7	9	y	OK	Suppressed canopy, typical of species, dead wood, broken branches		1			14	3	14	14	S
94	504	Douglas fir	16	16	14	y	Poor	Mostly dead, serpentine trunk, failing to north			1		19	19	19	19	S
95	505	Western red cedar	18	18	13	y	OK	Typical of species, slight lean to west	1				18	18	18	18	S
96	506	Douglas fir	17	17	0	y	Poor	Failing to north			1		0	0	0	0	S
97	507	Western red cedar	8	8	6	y	OK	Thin canopy, suppressed canopy, typical of species, nurse tree	1				11	11	11	11	S
98	508	Western red cedar	17	17	12	y	OK	Thin canopy, suppressed canopy, typical of species, nurse tree	1				17	17	17	17	S
99	509	Western red cedar	15.5	15.5	10	y	OK	Self-corrected lean to south, typical of species	1				15	15	15	15	S
100	510	Douglas fir	20	20	15	y	Fair	Abnormal bark, shedding bark, carpenter ants, nurse tree, probable laminated root rot			1		20	20	20	20	S
101	511	Douglas fir	30	30	15	y	Poor	Abnormal bark, shedding bark, carpenter ants, woodpecker activity, laminated root rot?			1		20	20	20	20	L

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
102	512	Douglas fir	14	14	15	y	Fair	Serpentine trunk			1		20	20	20	20	S
103	513	Western red cedar	20	20	10	y	OK	Self-corrected lean to west, typical of species, exposed roots, suppressed canopy	1				15	15	15	15	S
104	514	Western red cedar	9.5	9.5	10	y	OK	Typical of species, dead wood	1				15	15	15	15	S
105	515	Douglas fir	13	13	8	y	Poor	Failing to north			1		13	13	13	13	S
106	516	Western red cedar	13	13	10	y	OK	Exposed roots, typical of species, suppressed canopy	1				15	15	15	15	S
107	517	Bigleaf maple	9	9	17	y	OK	Suppressed canopy, dead wood, serpentine trunk	1				22	22	22	22	S
108	518	Douglas fir	14	14	13	y	Poor	Dying, laminated root rot			1		18	18	18	18	S
109	519	Douglas fir	14	14	14	y	Poor	No taper, low live crown ratio 20%, dead wood, broken branches, probable laminated root rot			1		19	19	19	19	S
110	520	Bigleaf maple	9.5	9.5	15	y	OK	Suppressed canopy, serpentine trunk, dead wood, typical of species	1				20	20	20	20	S
111	739	Western red cedar	8	8	10	y	OK	Typical of species	1				15	15	15	15	S
112	794	Alder	9	9	10	y	Poor	Cavity @ 4' up to 7' on south			1		15	15	15	15	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
113	795	Douglas fir	19	19	10	y	Fair	Low live crown ratio - 15%, typical of species, nurse tree, dead wood, broken branches, laminated root rot?			1		15	15	15	15	S
114	796	Western red cedar	9	9	11	y	OK	Suppressed canopy, typical of species				1	16	16	16	16	S
115	797	Western red cedar	7	7	9	y	OK	Typical of species, suppressed canopy, self-corrected lean to west				1	15	15	15	15	S
116	798	Western red cedar	8	8	11	y	OK	Slight serpentine trunk, asymmetric canopy to south, typical of species				1	16	16	16	16	S
117	799	Western red cedar	24	24	15	y	OK	Nurse tree, typical of species				1	20	20	20	20	S
118	800	Western red cedar	27	27	14	y	OK	Column of decay on east, vertical crack on east @ 3' up to 12', typical of species		1			15	19	19	19	S
119	A	Western red cedar	18	18	12	Y	OK	Typical of species	1				17	17	17	17	S
120	B	Western red cedar	18	18	14	Y	OK	Typical of species	1				19	19	19	19	S
121	C	Douglas fir	30	30	13	Y	OK	Asymmetric canopy to south, low live crown ratio 15%, dead wood, broken branches, ivy @ root crown up to 20'		1			18	18	18	6	L
122	D	Western red cedar	18	18	16	Y	OK	Typical of species, suppressed canopy, dead wood				1	21	4	21	4	S

1	2	3	4	5	6	7	8	9	10				11				12
#	Tree Tag #	Species ID	DBH inches	Adj. DBH inches	Drip-line radius feet	Wind-firm	Health	Defects/Comments	Proposed Action				CRZ/TPZ/LOD includes 5' buffer Radius in feet				Value
											Remove						
									Retained*	Impacted	Non- viable	For site improvements	N	W	E	S	
123	E	Western red cedar	10	10	9	Y	Fair	Suppressed canopy, dead wood, broken branches, asymmetric canopy to north			1		14	14	14	14	S
124	F	Douglas fir	16	16	14	Y	Fair	Lean to west, thin canopy, abnormal bark, carpenter ants, woodpecker activity, OK in grove			1		19	19	19	19	S
125	G	Douglas fir	12	12	9	Y	Fair	Self-corrected lean to east, asymmetric canopy to east, broken branches, dead wood, horizontal crack @ 1' on east, OK in grove			1		14	14	14	14	S
126	H	Douglas fir	16	16	14	Y	Fair	co-dominant leaders with included bark x2 @ 30' reduced to 1, hanger, dead wood, broken branches, laminated root rot? OK in grove			1		19	19	19	19	S
127	I	Western red cedar	17	17	16	Y	OK	Suppressed canopy, typical of species	1				21	21	21	21	S
* impacted by Utilities demarked by * and considered retained (9)									50	18	45	14		127			

RZC 21.72.060 C.3
Offsite trees: None

Calculation Matrix:

Proposed Action and Brief Definition					
Tree Type	**Removal**	**Impacted**	**Retained**	**Retained/ Impacted***	**Total**
Landmark (>30" DBH)	Number of removed landmark trees	Number of impacted landmark trees	Number of retained landmark trees	Number of Retained/Impacted Landmark Trees	Total Landmark Trees
	0	2	0	0	2
	% of Removed Landmark Trees of All Landmark Trees	% of impacted Landmark Trees of all Trees	% of Retained Landmark Trees of All Landmark Trees	% of Retained/Impacted Landmark Trees of All Landmark Trees	% Landmark Trees of All Trees
	0%	2/2=100%	0/82=0%	0%	2/82=2.4%
Significant (6" - 30")	Number of removed significant trees	Number if impacted significant trees	Number of Retained Significant Trees	Number of Retained/Impacted Significant Trees	Total number of significant trees
	14	16	43	7	80
	% Significant removed of all significant trees	% impacted of all significant trees	% retained of all significant trees	% retained/impacted of all significant trees	% significant trees of all trees
	14/80=17%	16/80=20%	43/80=54%	7/80=9%	80/82=97.5%
Totals	Number of Landmark + Significant removed trees	Number of Landmark + significant impacted	Number of Landmark + significant retained	Number of Landmark + significant retained/impacted trees	Total Number of ALL Trees
	14	18	43	7	82
	% removed of all trees	% impacted of all Trees	% Retained of all Trees	% retained/impacted of all trees	
	14/82=17%	18/82=22%	43/82=52%	7/82=9%	100%

***Impacted by utilities counts as retained trees**

Replacement Trees			
Replacement Quota	**Number of trees**	**Number of replacement trees**	**Total number of replacement trees**
Removed Landmark (3:1)	0	0	0
Impacted Landmark (3:1)	2	6	6
Removed Significant (1:1)	14	14	14
Impacted Significant	16	16	16
Total # of Replacement trees			**36**

35% Tree Retention
RMC 20D.80.20-070 (1) (a) requires 35% of significant trees be retained 82*.35= 29 Trees
Proposed improvements retains 50 trees
Proposed improvements impacts 18 Trees
Mitigation: 14 + 6 = 16 = 36 Trees

Discussion:

The information gathered and reported above is provided to satisfy the city of Redmond's requirements for a tree preservation plan (RZC 21.72). The trees were surveyed and I tagged them in the field. Each tree was measured at approximately four and a half feet above grade. Each trunk of trees whose normal growth habit is characterized by multiple trunks as well as those trees whose structure arose out of co-dominant leaders were also measured at 4.5' above grade and the average of the leaders were taken to be the adjusted DBH sited on the matrix.

The dripline of each tree was measured using a laser recording device. One measurement was taken on each tree with a "normal" balanced canopy that was approximately equal in radius in all directions. Trees with asymmetric canopies are generally located on the outside edges of groves. The radius of their canopies can vary a great deal. When describing the radius of those canopies, measurements were taken of the canopy in the four directions (NESW) are recorded.

Driplines were also revised to more adequately reflect the location of buttress roots located on the opposite side of an asymmetric canopy – so where there may not be a dripline present, one was prescribed.

Landmark trees per Redmond zoning code (21.72.60) are identified in this report by a bolder typeface and described under the "value" column as **LM**. There are 2 landmark trees onsite, one is impacted, and the other is retained.

As much as possible retained trees were left in groves and retained in areas where they would not experience changes in wind impact. There are 14 viable trees proposed to be removed; 18 trees are impacted by construction, 7 are impacted by utilities and 43 trees are retained and not impacted. Because Trees impacted by utilities are retained the total number of retained trees is 50; 43 + 7 = 50.

Trees 419, 420, and 421 are impacted by both construction and by utilities. I considered them to be "impacted" rather than "impacted/retained" trees.

It is permissible to trench within the driplines of retained trees # 401, 402, 407, 408, 409, 412, and 418, however the underground utilities will need to be hand dug under the roots of trees # 419, 420 and 421.

In addition to the installation of the underground utilities, the proposed improvements require that work be completed in the dripline of 18 trees. The impact to those trees will be minimal. Two of the 18 trees are Landmark trees: tree number 430 will have an access road (asphalt) built in the dripline covering 50% of the dripline. The material is porous and the construction depth is less than 12", however, the excavation should be monitored by an ISA Certified arborist.

Likewise, Landmark tree "C" will be impacted by a concrete pad, the excavation of that area should be similarly monitored.

It is important to note that there are several "hotspots" of disease presumed to be Laminated root rot (*Phellinus sulphurascens).* A "hotspot" of disease is a location on a site that has standing dead trees, as well as trees that have died and failed. The disease susceptible trees, in this case Hemlocks and Douglas may or may not show symptoms. On this site, there were many trees that were symptomatic. The identifying features include those mentioned above: standing dead trees, downed trees, trees with chlorotic needles and thinning canopy, "pitted" appearance to the downed material, and a rounded canopy with shortened candles of new growth and stunted top growth.

Most the trees can be retained in their current groves, but it is recommended that they be further assessed and monitored.

Per the RZC 21.72, all healthy significant trees removed are to be replaced at a 1:1 ratio. Landmark trees (DBH >30") are be replaced at a 3:1 ratio.

RZC 21.72 code specifies that the replacement trees meet or exceed the American Nursery and Landscape Standard and that the minimum sizes for replacement be:

- 2.5" caliper at breast height for a deciduous tree
- 6-8' tall for an evergreen replacement

Tree Protection Fencing:

First, protect the roots that lie in the path of construction. Approximately 90-95% of a trees root systems lie in the top three feet of soil and more than ½ of them are in the top 1'. Construction activities should be avoided in this area. Protect as much of the area beyond the tree's dripline as possible. Some healthy trees survive after losing ½ of their roots. However, other species are extremely sensitive to root damage even outside the dripline.

Do not disturb the critical root zone (CRZ). The CRZ is defined by its critical root radius. It is more accurate than the dripline for determining the CRZ of trees growing in forests or that have narrow growth habits. To calculate the critical root radius, measure the trees diameter (DBH) 4.5' above the ground. For each inch, allow for 1- 1.5' of critical root radius. If a tree's DBH is 10", its critical root radius is 10-15'.

In addition to the CRZ, it is important to determine the limits of disturbance (LOD) for preserved trees. Generally, this approximates the CRZ; however, in previously excavated areas around the dripline the LOD may be smaller or in the case of a tree situated on a slope the LOD may be larger. The determination of the LOD is also subject to the tree species. Some tree species do better than others after root disturbance.

Tree protection is advised throughout the duration of any construction activities whenever the critical root zone or leaf canopy may be encroached upon by such activities.

The CRZ or LOD should be protected with fencing adequate to hinder access to people, vehicles and equipment. Fencing detail should be provided. It should consist of continuous 4' high temporary chain-link fencing with post sections @ 10' on center, polyethylene laminar safety fencing or similar materials. The fencing must contain fencing signage detailing that the tree protection area cannot be trespassed on.

Soil compaction is one of the most common killers of urban trees. Stockpiled materials, heavy machinery and excessive foot traffic damage soil structure by reducing pore space. The effected tree roots suffocate. When construction takes place close to the protected CRZ, cover the site with 4" of bark to reduce soil compaction.

Tree protection fencing must be erected prior to soil excavation, boring, grading or fill operations. It is erected at the LOD. If it is necessary to run utilities within the LOD, the utilities should be combined into one cut as practical. Trenching should not be done in the LOD. If roots greater than 1" diameter near the LOD are damaged or torn, it is necessary to hand trim them to a clean cut. Any roots that are exposed during construction should be covered with soil as soon as possible.

During drought conditions, trees must be adequately watered. Site should be visited regularly by a qualified ISA Certified Arborist to ensure the health of the trees. Tree protection fencing is the last item to be removed from the site after construction is completed.

After construction, has been completed, please contact an ISA Certified arborist to evaluate the remaining trees looking for signs and symptoms of damage or stress. It may take several years for severe problems to appear. If fencing around portions of the CRZ of a tree to be retained are not practical to erect due to

construction or obstacles, tree protection fencing should be placed 3' laterally from the obstruction (ex. 3' back of a curb, building, or other existing or planned permanent infrastructure.)

Monitoring:

The tree protection fencing should be assessed prior to development by an ISA Certified Arborist to ensure that it complies with the parameters described in this report prior to individual lot development. The overall health of the retained trees should be assessed annually and the maintenance adjusted accordingly. Adjustments include but are not limited to additional watering during periods of drought, removal of visible dead wood and fertilization.

Glossary:

ANSI A300: American National Standards Institute (ANSI) standards for tree care

Chlorotic: discoloration caused by lack of chlorophyll in the foliage

Conifer: A tree that bears cones and has evergreen needles or scales

Crown: the above ground portion of the tree comprised of branches and their foliage

Crown raise pruning: a pruning technique where the lower branches are removed, thus raising the overall height of the crown from the ground

DBH or DSH: diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade

Deciduous: tree or other plant that loses its leaves annually and remains leafless generally during the cold season

Epicormic: arising from latent or adventitious buds

Evergreen: tree or plant that keeps its needles or leaves year-round; this means for more than one growing season

Increment: the amount of new wood fiber added to a tree in a given period, normally one year.

ISA: International Society of Arboriculture

Landscape function: the environmental, aesthetic, or architectural functions that a plant can have

Lateral: secondary or subordinate branch

Limits of disturbance: The boundary of minimum protection around a tree, the area that cannot be encroached upon without possible permanent damage to the tree. It is a distance determined by a qualified professional and is based on the age of the tree, its health, the tree species tolerance to disruption and the type of disturbance. It also considers soil and environmental condition and previous impacts. It is unique to each tree in its location.

Limited visual assessment: a visual assessment from a specified perspective such as foot, vehicle, or aerial (airborne) patrol of an individual tree or a population of trees near specified targets to identify specified conditions or obvious defects (ISA 2013)

Live crown ratio: the percentage of living tissue in the canopy versus the tree's height. It is a good indicator of overall tree health and the trees growing conditions. Trees with less than a 30% Crown ratio often lack the necessary quantity of photosynthetic material necessary to sustain the roots; consequently, the tree may exhibit low vigor and poor health.

Monitoring: keeping a close watch; performing regular checks or inspections

Owner/manager: the person or entity responsible for tree management or the controlling authority that regulates tree management

Pathogen: causal agent of disease

Phototropic growth: growth toward light source or stimulant

ROW: Right-of-way; generally referring to a tree that is located offsite on a city easement

Reaction wood: Specialized secondary xylem which develops in response to a lean or similar mechanical stress, it serves to help restore the stem to a vertical position

Self-corrected lean: a tree whose trunk is at an angle to the grade but whose trunk and canopy changes to become upright/vertical

Significant tree: a tree measuring a specific diameter determined by the municipality the tree grows in. Some municipalities deem that only healthy trees can be significant, other municipalities consider both healthy and unhealthy trees of a determined diameter to be significant

Snag: a tree left partially standing for the primary purpose of providing habitat for wildlife

Soil structure: the size of particles and their arrangement; considers the soil, water, and air space

Sounding: process of striking a tree with a mallet or other appropriate tool and listening for tones that indicate dead bark, a thin layer of wood outside a cavity, or cracks in wood

Structural defects: flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure; may be genetic, or environmental

Tree credit: A number assigned to a tree by a municipality that may be equal to the diameter of the tree or a numerical count of the tree, or related to diameter by a factor conveyed in a table of the municipal code

Trunk area: the cross-sectional area of the trunk based upon measurement at 54 inches (4.5 ft.) above grade

Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth. Developed by Claus Mattheck (Harris, et al 1999) detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (ISA 2013)

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Assumptions and Limiting Conditions

1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as thou free and clear, under responsible ownership and competent management.

2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.

3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

4. The consultant/appraiser shall not be required to give testimony or to attend court by reason of the report unless subsequent contractual arrangements are made including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

5. Loss or alteration of any part of this report invalidates the entire report.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

7. Neither all nor any part of the contents of the report, nor copy thereof, shall be conveyed by anyone, including the client to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser – particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or instate or to any initialed designation conferred upon the consultant/appraiser as stated in her qualification.

8. The report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of subsequent event, nor upon any finding to be reported.

9. Sketches, diagrams, graphs and photographs in this report, being intended as visual aid, are not necessarily to scale and should not be construed as engineering or architectural reports or survey.

10. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2: the inspection is limited to visual examination of accessible items without dissection, excavation, probing or coring. There is not warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

December 19, 2016

Sarah Telschow, AICP
Odelia Pacific Corporation
5506 6th Avenue South, Suite 202
Seattle, WA 98108

Site: Puget Sound Emergency Radio Network
Education Hill
10365 172 Ave NE
Redmond, WA 98052

Re: Tree exception requests for work in the dripline of two Landmark trees

Dear Sarah:

Per Heather Malaiefski (planner) we need to submit tree exception letter to request permission to work within the dripline of the landmark trees. We are not proposing removal of the two trees, however, I've recommended in my report that an ISA certified arborist be onsite to monitor the work in that area to ensure that the roots are properly cared for.

The RZC 21.72.090 requires that we address each of four issues, though they are specific to removing the tree rather than retaining and impacting the tree so strictly speaking the code is only loosely pertinent. Heather is aware of this.

If you have any questions, please call me. I can be reached on my cell phone: 425.890.3808 or by email: sprince202@aol.com.

Warm regards,

Susan P

Susan Prince
Creative Landscape Solutions
ISA Certified Arborist: PN #1418A
TRACE Certified Arborist: #418
17518 NE 119th Way
Redmond, WA 98052

EXCEPTION REQUEST
LANDMARK TREE #430– This tree is located immediately north of a proposed asphalt access road; the excavation and installation of the drive will impact 50% of the root zone to a depth of 12".

21.72.090 (B1), (B2), (B3), (B4)

B1. The exception is necessary because:

a) There are special circumstances related to the size, shape, topography, location or surroundings of the subject property;
   N/A

b) Strict compliance with the provisions of this code may jeopardize reasonable use of the property;
   - N/A

c) Proposed vegetation removal, replacement and any mitigating measures proposed are consistent with the purpose and intent of the regulations; or
   - Rather than remove the tree, the request is being made to retain the tree and work (under Arborist supervision) in the dripline of the tree

d) The granting of the exception or standard reduction will not be detrimental to the public welfare or injurious to other property in the vicinity;
   - The proposal includes the retention of 53 significant trees (64%), public welfare and adjacent properties will benefit from the retention of the tree rather than its removal. The proposal requires 32 replacement trees. See the Tree Preservation Plans for additional information.

e) The strict compliance with the provisions of this code would be in conflict with the increased density of urban centers and result in development that would be inconsistent with the adopted vision for the neighborhood.
   - N/A

B2. If an exception is granted below the required minimum retention standard of 35%, tree replacement shall be at a minimum of three trees for each significant tree removed. Tree replacement ratios may be modified for master plans within urban centers to allow for 1:1 replacement when accompanied by three-tier vegetative replacement plan.

- The removal of the significant trees will be a 1:1 replacement rate as 35% tree retention is proposed. Landmark trees will be replaced at a 3:1 replacement rate, consistent with RZC21.72.080A., and includes the replanting of 32 replacement trees.

B3. Native growth Protection Area (NGPA). Trees within an established Native growth Protection Area shall not be removed except when removal has its specified purpose:

- N/A This tree is not located within the open space tract or critical area tract. Items a-h are not applicable.

4. Proposed tree removal, replacement and any mitigation proposed are consistent with the purpose and intent of this section.

- The Landscape Plan and replacement trees have been developed in accordance with the City of Redmond Zoning Code (RZC), Chapter 21.72.080. The proposal requires 32 replacement trees, please see the Landscape Plans for additional information.

EXCEPTION REQUEST
LANDMARK TREE #C– This tree is located immediately north of a proposed concrete pad; the excavation and installation of the drive will impact 50% of the root zone to a depth of 12".

21.72.090 (B1), (B2), (B3), (B4)

B1. The exception is necessary because:

f) There are special circumstances related to the size, shape, topography, location or surroundings of the subject property;
   N/A

g) Strict compliance with the provisions of this code may jeopardize reasonable use of the property;
   - N/A

h) Proposed vegetation removal, replacement and any mitigating measures proposed are consistent with the purpose and intent of the regulations; or
   - Rather than remove the tree, the request is being made to retain the tree and work (under Arborist supervision) in the dripline of the tree

i) The granting of the exception or standard reduction will not be detrimental to the public welfare or injurious to other property in the vicinity;
   - The proposal includes the retention of 53 significant trees (64%), public welfare and adjacent properties will benefit from the retention of the tree rather than its removal. The proposal requires 32 replacement trees. See the Tree Preservation Plans for additional information.

j) The strict compliance with the provisions of this code would be in conflict with the increased density of urban centers and result in development that would be inconsistent with the adopted vision for the neighborhood.
   - N/A

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